

POLICY OPTIONS TO SECURE TRANSBOUNDARY WILDLIFE CORRIDORS IN THE KAZA-TFCA: STRENGTHENING COMMUNITY-BASED CONSERVATION IN SIMALAHA, ZAMBIA

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KEY MESSAGES

- **Scale up conservancies:** Expand community-managed conservancies across Kavango –Zambezi Transfrontier Conservation Area (KAZA-TFCA) to strengthen biodiversity conservation, protect habitats, and maintain wildlife corridors sustainably.
- **Provide alternative livelihoods:** Support climate-resilient livelihood opportunities to reduce agricultural expansion, habitat destruction, and human pressure on conservation areas.
- **Use low-cost satellite tools:** Governments and other key stakeholders are encouraged to utilize modern techniques such as free satellite imagery and open-source tools to monitor land cover changes and strengthen early conservation interventions.
- **Harmonize cross-border policies:** Align regional land-use and wildlife policies among the KAZA-TFCA countries to improve transboundary conservation and protect migratory species corridors.

EXECUTIVE SUMMARY

Africa's wildlife faces a salient crisis, such as the slow breaking up of habitats that wildlife depends on to feed, breed, and move. This Policy brief presents findings from the first systematic satellite-based assessment of the Simalaha Community Conservancy (SCC) in Western, Zambia, a 180,000-hectare community-managed wildlife area that links Chobe National Park in Botswana with Kafue National Park in Zambia. Using freely available Landsat satellite imagery analysed across two points in time from 2010 to 2025, the study compared land cover change inside and outside the conservancy. The results are clear; Habitat inside the SCC remained largely stable and well connected, while the land surrounding it suffered accelerating forest loss and breakups, and agricultural encroachment. These findings demonstrate the power of the conservancy model and the urgent need to protect the broader landscape around it. Therefore, urgent policy intervention is required to secure the broader transboundary matrix for migratory species like elephants.



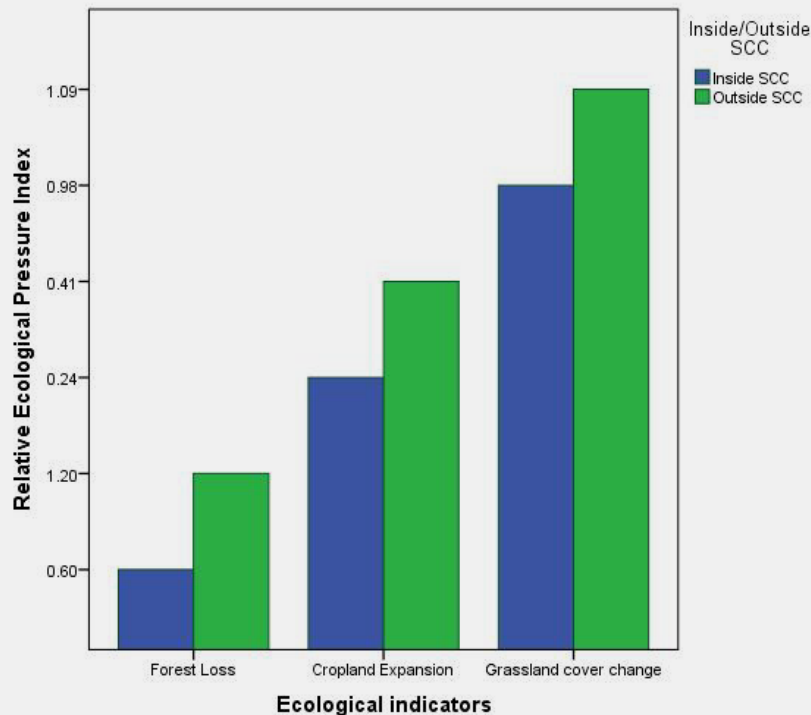
THE CRISIS: EVIDENCE BASED

Empirical evidence from the SASSCAL 2.0 sponsored research "A spatial analysis of habitat connectivity in Simalaha Community Conservancy of Zambia" (Musenge et al., 2026), shows accelerated forest loss and increased agricultural expansion outside the conservancy over a 15-year period. The research indicates that while internal forests are transitioning into connected grasslands, external areas are experiencing higher rates of degradation, settlement growth, and habitat breakups (Table 1). These findings have significant implications for implementation of Zambia's environmental and conservation agenda, particularly under the National Community-Based Natural Resource Management (CBNRM) Policy (2023–2027), the National Policy on Environment (NPE), the National Biodiversity Strategy and Action Plan (NBSAP), and the broader objectives of the Green Economy and Climate Change Act of 2024, which collectively emphasize sustainable natural resource management, biodiversity conservation, and climate resilience. At the regional level, the results further reinforce the conservation priorities of KAZA–TFCA, which seeks to strengthen trans-boundary ecological connectivity and safeguard wildlife migration corridors across parts of Southern Africa.

Table 1. Comparative Habitat Change Indicators Inside and Outside Simalaha Community Conservancy (SCC) in Southern and Western Zambia between 2010-2025.

Indicator	Inside SCC (Protected)	Outside SCC (Unprotected)
Forest cover loss (15-year period)	Lower decline (buffered loss) Below 1 %	1.2% decline
Cropland expansion	+0.24%	+0.41%
Settlement growth rate	Moderate / controlled	Nearly double internal rate
Habitat connectivity	High / relatively maintained	Declining connectivity
Habitat fragmentation	Stable / improving	Increasing sharply
Habitat transformation	Forest transition into connected grasslands	Forest degradation into patchy land cover
Large herbivore habitat suitability	Maintained / improved	Declining
Isolation effects	Limited	Severe (rising patch numbers)

Fig. 1



Comparative habitat pressure inside and outside of Simalaha Community Conservancy in Southern and Western Zambia between 2010-2025

- Forest loss is significantly higher outside the conservancy: Forest cover declined by 1.05-1.2% outside the SCC boundaries, compared to just 0.92% inside. Although these percentages may seem small, they represent thousands of hectares of irreplaceable wildlife habitat lost over just 15 years.
- Farmland is expanding rapidly beyond the conservancy fence: Cropland grew at nearly twice the rate outside (0.41%) compared to inside (0.24%), driven by smallholder farmers expanding to feed growing families on poor, sandy soils.
- Settlements are growing faster in unprotected areas: Villages and built-up areas expanded at nearly double the rate outside the conservancy relative to inside, intensifying pressure on forest and wetland habitats.
- Inside the conservancy, connectivity is strong, and improving forests and grasslands within the SCC became better connected over time, creating more viable corridors for large mammals, such as elephants (*Loxodonta africana*) and blue wildebeest (*Connochaetes taurinus*).
- Outside the conservancy, habitats are breaking into "islands": The number of habitat patches increased substantially in unprotected areas, a key indicator of fragmentation. When habitats become isolated, animal populations can no longer move freely, weakening genetic diversity and long-term survival.

POLICY IMPLICATIONS: THE COST OF INACTION

Failing to intervene outside the conservancy boundaries will trigger severe landscape degradation, rendering internal conservation successes unsustainable. Allowing external human encroachment to continue unchecked risks the following:

- **Biological isolation:** As the habitat outside the SCC continues to break apart, it will form 'biological islands' – small patches of wildlife habitat surrounded by farmland and settlements. Once animal populations become isolated in these islands, they cannot exchange genetic material, weakening the health and resilience of entire species.
- **Corridor collapse:** The SCC's most critical ecological function is to connect Chobe and Kafue National Parks, providing a highway for wildlife movement across the KAZA – TFCA. If the surrounding land is transformed, this corridor will effectively close, cutting off cross – border migration routes that have existed for thousands of years.
- **Escalating human/wildlife conflict:** As habitats shrink, elephants and other large animals are forced closer to human settlements in search of food and water. This increases the risk of crop and property damage, and dangerous encounters, threatening both livelihoods and community support for conservation.
- **Ecosystem service decline:** Unregulated land clearing destroys the vegetation and soils that filter water, prevent flooding, and support local agriculture. Communities that depend on ecosystem services for their livelihoods will face increasing hardship.

RECOMMENDATIONS: A PATH TO RESILIENCE

1. Strengthening Buffer Zone Regulations

Establish legal land use zoning frameworks in the areas surrounding community conservancies, with clear restrictions on conversion of critical wildlife habitat boundaries to farmland.

2. Invest in community livelihood alternatives

Launch conservation-linked income programmes including community ecotourism, beekeeping, sustainable timber, and conservation employment in villages surrounding the conservancy to reduce dependence on land clearing.

3. Institutionalize low-cost remote sensing

Build capacity among community conservancies to use freely available satellite imagery (Landsat, Sentinel) and open-source tools, to enable annual land cover monitoring and reporting.

4. Enhance transboundary collaboration

Harmonise wildlife corridor protection policies in the KAZA- TFCA across Angola, Botswana, Namibia Zambia, and Zimbabwe ensuring that transboundary movement routes, such as the Zambezi-Chobe dispersal area are legally protected in all five countries.

CONCLUSION

The SCC stands as clear empirical evidence and proves that community-led initiatives effectively protect biodiversity. Over 15 years SCC has maintained landscape connectivity and reduced habitat loss within its boundaries, even while surrounding areas faced accelerating degradation. However, internal success cannot withstand unchecked external anthropogenic pressures. Policymakers at local, national and regional must adopt landscape-scale strategies to bridge protected and unprotected matrix lands. Securing these linkages ensures long-term climate resilience and economic sustainability for Southern and Western Zambia as well as the KAZA - TFCA.

REFERENCES & FURTHER READING

Musenge, D. C., Phiri, D., Namukonde, N., Mulenga, G., & Nyirenda, V. R. (2026). A spatial analysis of habitat connectivity in Simalaha Community Conservancy of Zambia. *Discover Geoscience*, 4(1), 9. <https://doi.org/10.1007/s44288-026-00387-8>

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